CLAIMS

1. A kit for introducing a surgical implant (1) into a cavity in the body of a patient, the kit comprising:

· a surgical implant (1) for implanting in said cavity, said implant (1) being expandable from a configuration for introduction into the cavity to a therapeutic configuration within the cavity; and

· a cartridge (2) for packaging said implant (1) in the introduction configuration, said cartridge (2) being provided with an opener member (3) activatable by positive action enabling the cartridge to pass from a closed configuration in which it confines the implant (1) in its introduction configuration, to an open configuration in which it allows said implant (1) to expand;

the kit being characterized in that the cartridge (2) includes locking means (4) functionally connected to the opener member (3) and capable on its own, without any external action on said locking means (4) of holding the cartridge (2) in the closed configuration.

2. A kit according to claim 1, characterized in that the cartridge (2) comprises a sleeve (5) provided with at least one side opening (6) formed along its length, said opening (6) being closed by said locking means (4) when said cartridge (2) is in the closed configuration, and said opening (6) being disengaged to allow the implant (1) to expand when said cartridge (2) is in the open configuration.

3. A kit according to claim 2, characterized in that the sleeve (5) is substantially tubular in shape and is slit along all or part of its length, said slit constituting the side opening (6).

4. A kit according to claim 2 or claim 3, characterized in that the sleeve (5) is made of a material that is flexible, but substantially not elastic.

5. A kit according to any one of claims 2 to 4, characterized in that the sleeve (5) is made of a fabric having two opposite edges locked together by the locking means (4) so that the fabric takes up a substantially tubular shape.

6. A kit according to claim 5, characterized in that the fabric is made by weaving threads that are based mainly on polyamide, such as Nylon® thread.

7. A kit according to any one of claims 2 to 6, characterized in that at least a fraction of the structure (5A) of the cartridge (2) is covered in a coating for making the cartridge (2) slide more easily against an external surface.

8. A kit according to claim 7, characterized in that the coating is based on one or more materials taken from the following group:

- a biocompatible elastomer, of the silicone or polyurethane type;
- paraxylilene, of the parylene® type;
- polyvinylpyrrolidone (PVP); and
- sodium hyaluronate.

9. A kit according to any one of claims 1 to 8, characterized in that the cartridge (2) is provided with a thread (12) having a first portion sewn as a single-thread chain stitch so as to form said locking means (4), and having a second portion (14) that remains free and forms the opener member (3) that can be actuated in traction.

10. A kit according to claim 9, and any one of claims 2 to 8, characterized in that the periphery of the side opening (6) is provided with eyelets (13) for being assembled together by single-thread chain-stitch sewing in order to close said opening (6).

11. A kit according to claim 10 and any one of claims 5 to 8, characterized in that the eyelets (13) are defined by meshes in the fabric situated close to and along said edges.

12. A kit according to any one of claims 9 to 11, characterized in that the chain stitch belongs to class 101 of the December 1982 standard NF G 05-002.

13. A kit for introducing an intragastric implant (1) into the stomach of a patient to treat obesity, the kit being according to any one of claims 1 to 12 and comprising:

· an intragastric implant (1) for implanting in the stomach in order to reduce its volume, said implant (1) being expandable from a configuration for introduction into the stomach to a therapeutic configuration within the stomach; and

· a cartridge (2) for packaging said implant (1) in the introduction configuration, said cartridge (2) being provided with an opener member (3) that is activatable by positive action enabling it to pass from a closed configuration in which it confines the implant (1) in its introduction configuration, to an open configuration in which it allows said implant (1) to expand,
the cartridge (2) including locking means (4) functionally connected to the opener member (3) and capable on its own, without requiring any external action on said means (4), of holding the cartridge (2) in the closed configuration.

14. A kit according to claim 13, characterized in that the intragastric implant (1) is an intragastric balloon comprising a first flexible bag defining a predetermined inside volume, said first flexible bag being provided with first connection means for receiving a connection member (7) for connection to a first source of fluid in order to enable said first bag to be expanded in the stomach by being filled with the fluid.

15. A kit according to claim 14, characterized in that the balloon (1) includes at least one second flexible bag of predetermined volume and provided with second connection means so as to enable it to be connected to a second source of fluid.

16. A kit according to claim 15, characterized in that said at least one second bag is of smaller volume than the first bag, and is located inside the first bag.

17. A cartridge (2) for introducing a surgical implant (1) into a cavity within the body of a patient, said implant (1) being designed to be implanted in said cavity and being expandable from a configuration for introduction into the cavity to a therapeutic configuration within the cavity, said cartridge (2) being designed to package said implant (1) in its introduction configuration and being provided with an opener member (3) that is activatable by positive action enabling the cartridge to pass from a closed configuration in which it confines the implant (1) in its introduction configuration, to an open configuration in which it allows said implant (1) to expand, the cartridge (2) being characterized in that it includes locking means (4) functionally connected to the opener member (3) and serving on its own to hold the cartridge (2) in the closed configuration without any external action on said opener means (3).

18. A cartridge (2) according to claim 17, characterized in that it comprises a sleeve (5) provided with at least one side opening (6) formed in its length, said side opening (6) being closed by said locking means (4) when said cartridge (2) is in the closed configuration, and said opening (6) being disengaged to allow the implant (1) to expand when said cartridge (2) is in the open configuration.

19. A cartridge (2) according to claim 18, characterized in that the sleeve (5) is substantially tubular in shape and is slit along all or part of its length, said slit constituting said side opening (6).

20. A cartridge (2) according to claim 18 or claim 19, characterized in that the sleeve (5) is made of a material that is flexible, but substantially not elastic.

21. A cartridge (2) according to any one of claims 18 to 20, characterized in that the sleeve (5) is made of a fabric having two opposite edges locked together by the locking means (4) so that the fabric takes up a substantially tubular shape.

22. A cartridge according to claim 21, characterized in that the fabric is made by weaving threads that are based mainly on polyamide, such as Nylon® thread.

23. A cartridge according to any one of claims 18 to 22, characterized in that at least a portion of its surface (5A) is covered in a coating for making the cartridge (2) slide more easily against an external surface.

24. A cartridge (2) according to claim 23, characterized in that the coating is based on one or more materials taken from the following group:

· a biocompatible elastomer, of the silicone or polyurethane type;

· paraxylilene, of the parylene® type;

· polyvinylpyrrolidone (PVP); and

· sodium hyaluronate.

25. A cartridge (2) according to any one of claims 17 to 24, characterized in that it is provided with a thread (12) having a first portion sewn with a single-thread chain stitch so as to form the locking means (4), and having a second portion (14) that remains free and forms the opener member (3) that can be actuated in traction.

26. A cartridge (2) according to claim 25 and any one of claims 18 to 24, characterized in that the periphery of the side opening (6) is provided with eyelets (13) for being assembled by sewing with a single-thread chain stitch in order to close said opening (6).

27. A cartridge (2) according to claim 26, when dependent on claim 21, characterized in that the eyelets (13) are formed by meshes in the fabric situated close to and along said edges.

28. A cartridge (2) according to any one of claims 25 to 27, characterized in that the chain stitch belongs to class 101 of the December 1982 standard NF G 05-002.

29. A cartridge (2) for introducing an intragastric implant (1) into the stomach of a patient in order to treat obesity, the cartridge being according to any one of claims 17 to 28, said implant (1) being designed to be implanted in the stomach in order to reduce its volume and being expandable from a configuration for introduction into the stomach to a therapeutic configuration within the stomach, said cartridge (2) being designed to package said implant (1) in the

introduction configuration and being provided with an opener member (3) activatable by positive action enabling the cartridge to pass from a closed configuration in which it confines the implant (1) in its introduction configuration, to an open configuration in which it allows said implant (1) to expand, said cartridge (2) including locking means (4) functionally connected to the opener member (3) and capable on its own, without any external action on said opener means (3), of holding the cartridge (2) in the closed configuration.

30. A method of manufacturing a kit for introducing a surgical implant (1) into a cavity within the body of a patient, the method comprising the steps of:

· supplying or making a surgical implant (1) for implanting in said cavity, said implant (1) being expandable from a configuration for introduction into the cavity to a therapeutic configuration within the cavity;

· supplying or making a cartridge (2) for packaging said implant (1) in the introduction configuration; and

· providing said cartridge (2) with an opener member (3) activatable to enable the cartridge (2) to pass from a closed configuration suitable for confining the implant (1) in its introduction configuration, to an open configuration suitable for allowing said implant (1) to expand;

the method being characterized in that it further comprises a step of locking the cartridge (2) in the closed configuration, in which the cartridge (2) is provided with locking means (4) capable on its own, without any external action on said opener member (3), of holding the cartridge (2) in the closed configuration, and in which said locking means (4) is functionally connected to the opener member (3).

31. A method according to claim 30, characterized in that a cartridge (2) is made which, in the closed

configuration, is substantially in the shape of a sleeve (5) with at least one axial opening (5D, 5E) at one of the ends (5B, 5C) of said sleeve (5).

32. A method according to claim 31, characterized in that it includes a step of inserting the implant (1) in the sleeve (5), in which:

· the implant (1) is shaped into its introduction configuration; and

· then the implant (1) is constrained progressively along its length by means of a jig (23) to reduce the cross-section (S) of said implant (1) while simultaneously covering the implant (1) in the sleeve (5) in the closed configuration.

33. A method of manufacturing a kit for introducing an intragastric implant (1) into the stomach of a patient to treat obesity, the method being in accordance with any one of claims 30 to 32, and including the steps of:

· supplying or making an intragastric implant (1) for implanting in the stomach in order to reduce its volume, said implant (1) being expandable from a configuration for introduction in the stomach to a therapeutic configuration within the stomach;

· supplying or making a cartridge (2) for packaging said implant in the introduction configuration; and

· providing said cartridge (2) with an opener member (3) activatable by positive action enabling the cartridge to pass from a closed configuration in which it is suitable for confining the implant (1) in its introduction configuration, to an open configuration in which it is suitable for allowing said implant (1) to expand;

said method comprising a step of locking the cartridge (2) in the closed configuration in which the cartridge (2) is provided with locking means (4) capable on its own, without requiring any external action on said means

(4), of holding the cartridge (2) in the closed configuration, and in which said locking means (4) is functionally connected to the opener member (3).

34. The use of a chain stitch in accordance with class 101 of the December 1982 standard NF G 05-002 as the locking means (4) of a cartridge (2) in accordance with any one of claims 17 to 29.